



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,038	01/16/2004	In Cheol Jeong	0630-1938P	6144
2292	7590	12/29/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			KYLE, MICHAEL J	
			ART UNIT	PAPER NUMBER
			3677	

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/758,038

Applicant(s)

JEONG ET AL.

Examiner

Michael J. Kyle

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: the elements of the rear hinge that provide the claimed functions, and the elements of the front hinge that rotatably support the front of the drum.
3. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear how the ball bearing is swinging in the vertical and horizontal directions. What point, relative to the ball bearing, is the bearing swinging about? Is it moving relative to the housing? What structural elements allow for the ball bearing to swing?
4. Claims 3-11 ultimately depend from rejected claim 1, and include all of the limitations thereof. For this reason, these claims are also rejected.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 3677

6. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Heyder (U.S. Patent No. 5,483,756). Heyder discloses a hinge apparatus of a clothes drier drum comprising a front hinge portion (column 1, lines 66, 67), and a rear hinge portion (see figure 3) installed between the rear of a case (2) and a rear of a drum (8) such that the rear of the drum swings in vertical and horizontal directions.

7. With respect to claims 2 and 3, Heyder discloses the rear hinge portion to comprise a housing (10, 11) fixed at the center of the drum, a ball bearing (5) in the housing, and a shaft (3). The housing consists of first and second housings (11 and 10, respectively) fixed at the rear of the case (2). A spherical groove (around 5) is formed when the first and second housing are assembled.

8. With respect to claim 4, Heyder discloses a first engaging portion (upper and lower portions of 11, in figure 3) with a bolt hole (shown in figure 3) fixed at the rear surface of the drum (8) and a bolt engaging hole bolt engaged with the second housing (at 12). The holes are formed in a circumferential direction. The first hinge portion (11) is integrally formed at the center of the first engaging portion and has a hemispherical groove where the ball (5) is inserted.

9. With respect to claims 6-8, Heyder discloses one end of the shaft (3) fixed at the ball bearing (see figure 3), and the other end of the shaft has a spiral formed portion (threads) so as to be bolt engaged with the case (2). A base nut (portion around shaft 3, between 4 and 5, in figure 3) is screw engaged with the shaft at an inner surface of the case (2). The base nut is disc shaped and installed at a nut-installed portion at the case (2). A plurality of engaging protrusions (22) are formed at an interval in a circumferential direction.

Art Unit: 3677

10. With respect to claims 9 and 10, Heyder discloses a reinforcing member (1) mounted at an outer surface of the case. A stopping pin (23) is inserted in an insertion groove (of 22) formed in the case and is protruded to the nut-installed portion (area between 4 and 5) such that the stopping pin stops a stopping protrusion (22).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heyder in view of Crowley (U.S. Patent No. 5,963,432). In Heyder, it appears that the reinforcing member is fixed to the case by nut (4), not a weld or rivet as claimed.

13. Crowley teaches a fastening arrangement where a threaded rod and nut or a rivet may be used (column 4, lines 25-26), thus establishing equivalence between the two fasteners. It would have been obvious to one having ordinary skill in the art at the time of the invention to use a rivet to secure the reinforcing member to the case of Heyder, as a rivet is an equivalent fastening means.

Response to Arguments

14. Applicant's arguments filed October 3, 2005 have been fully considered but they are not persuasive. Applicant argues that Heyder does not disclose a hinge the swings as claimed.

Art Unit: 3677

Examiner respectfully disagrees. From claim 2 of the instant application, the claimed hinge rear hinge is a ball bearing, identical to that of Heyder. Because Heyder does not call the bearing hinge, does not preclude the bearing from reading on the claimed hinge. Secondly, applicant has provided no claimed structure that differentiates the present invention from Heyder, such that the instant hinge can swing, and the prior art hinge cannot. As claimed, Heyder meets each structural limitation set forth. There is no structure recited in the claims that enables to hinge to swing as claimed, and thus Heyder appears to be identical to the present invention. This action is made non-final because of the new 112 2nd paragraph rejections that have been introduced.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Kyle whose telephone number is 571-272-7057. The examiner can normally be reached on Monday - Friday, 8:30 am - 5:00 pm.

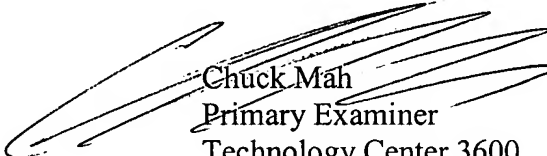
16. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3677

17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

7

mk



Chuck Mah
Primary Examiner
Technology Center 3600